

IDAHO  
DEPARTMENT OF FISH AND GAME

Environmental Analysis Report  
CHEMICAL REHABILITATION OF FISHERIES

Bureau of Fisheries  
June, 1980

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## Chemical Rehabilitation of Fisheries

### INTRODUCTION

The chemical rehabilitation of state waters is a part of the fishery management program which began over 25 years ago. It involves the application of chemicals to water to remove undesirable fish species. The chemicals most commonly used have been rotenone and antimycin. Squoxin has been used on an experimental basis in the control of squawfish. Rotenone and antimycin are currently registered for fish control and registration on squoxin is pending. Rotenone and antimycin are registered by the U.S. Environmental Protection Agency. Squoxin registration has been requested through the 1R-4 program of the Environmental Protection Agency.

Normally treatment occurs late in the summer and waters are restocked before the next fishing season. The proposed action covers a five year period beginning July 1, 1980.

Removal of predator and competitor species of fish creates a temporary reduction in biomass but results in a higher production of desirable species. The main impact is on the target species; however, some other aquatic forms are temporarily reduced in numbers.

The following alternatives were considered:

- Do not rehabilitate,
- Use alternate chemicals,
- Use means of physical removal,
- Use biological controls such as introduction of predator species,
- Use physical barriers to prevent rough fish infestation.

# ENVIRONMENTAL ANALYSIS REPORT

## Statewide Fishery Rehabilitation

### 1. Description of the Proposed Action

The project will involve the chemical rehabilitation of lakes, reservoirs and streams in Idaho. It is the continuation of a program developed over 25 years ago in which many bodies of water have been treated. The basic principle of the program is the introduction of chemicals to the waters to control or eliminate unwanted fish species. The program was developed to maintain and improve angling opportunities in Idaho. The neighboring states also have successful rehabilitation programs similar to Idaho's. California Department of Fish and Game has conducted a lake and stream restoration program for over 25 years, Washington Department of Game has had a lake rehabilitation program for at least 45 years, and Oregon Wildlife Commission has employed chemical rehabilitation for over 35 years.

Waters requiring rehabilitation are located in all parts of the state. Some have been treated in the past but retreatment is anticipated because of incomplete kills, illegal introduction of undesirable fish, or movement of rough fish into reclaimed waters. Substitutions or additions to the following list may be made as conditions warrant. An example would be the elimination of rough fish above a new reservoir,

Water volumes, status of fish stocks, and budgetary limitations will determine what year a water is rehabilitated (see Table 1). The chemical selected will determine the time of year. Rotenone and antimycin are normally used when streams and lakes are at their lowest levels. Because of its rapid degradation squoxin, if licensed, would be used on streams when velocities are high enough to obtain maximum coverage.

Rehabilitation of lakes and streams is a part of the statewide fisheries management program. It is coordinated with agencies and organizations involved in other water uses.

Chemical application may be by boat, aircraft, pump or dripper, depending upon the situation. Only chemicals registered for fish control will be used.

Rotenone and antimycin are both registered for use as fish toxicants by the Environmental Protection Agency. Before any fish toxicant can be used legally, it must be registered. In order to be registered basic requirements must be met. This includes determination of the safety of the chemical to man and other mammals, effects of the chemical on fish food organisms, other aquatic animals, and on aquatic and terrestrial plants. The effective doses for various life stages of target animals or plants in waters of various qualities and temperatures must be determined as well as the efficiency in reaching the target organisms. Part of the registration process is defining all cautions that must be exercised during field application. The residues that may be taken up in edible

Table 1. Bodies of water to be considered for chemical rehabilitation during the next 5 years

Water	County	Target Species	Chemical	Acre feet or miles
Roseworth Reservoir	Twin Falls	Native cyprinids	Rotenone	1,000 acre ft
Foster Reservoir	Franklin	Utah chub	Rotenone	500 acre ft
LaMont Reservoir	Franklin	Utah chub	Rotenone	500 acre ft
Pleasantview Reservoir	Oneida	Utah chub	Rotenone	100 acre ft
Sand Dunes Lake	Owyhee	Stunted bluegills	Rotenone	250 acre ft
N. Fk. Payette River	Valley	Squawfish	Squoxin*	17 miles @ 500 cfs
St. Joe River	Benewah	Squawfish	Squoxin*	40 miles @ 500 cfs
Small ponds and reservoirs	Statewide	Cyprinids Stunted game fish	Rotenone	5 – 75 acre ft

\* Squoxin use is pending approval of license.

Substitutions or additions to the above list may be made as conditions warrant.

portions of nontarget animals and plants, their persistence, and any biological magnification of residues in the food chain must also be determined. The migration of residues that may appear in potable water or in meat of livestock is traced. Finally, the degradation, i.e., how the chemical breaks down or disappears, and means of destroying the chemical in water are essential parts of the registration process.

The following information about the properties and use of antimycin and rotenone as fish toxicants is drawn from summaries prepared by the Fish Control Laboratories, LaCrosse, Wisconsin.

A. Rotenone – Registration Nos. 432-171, 432-172

Rotenone has been used successfully in removing undesirable fish populations for over 40 years. It is an organic chemical manufactured from cube or derris roots and their derivatives. The fish killing property of the material was discovered by Indians and other primitive people centuries ago and they used it to obtain fish for food.

Refinements over the years have produced a chemical that can be easily applied in known concentrations. Current forms are liquid, synergized liquid and powder. The most commonly produced liquids contain 2.5 percent to 5.0 percent rotenone, 5.0 percent to 100 percent related rotenoids and cube extractives, or 2.5 percent sulfoxide synergist and 85.0 percent to 90.0 percent solvent. Powdered rotenone is prepared in 5.0 percent and 20.0 percent formulations blended with an inert carrier. The only form used in Idaho in recent years is synergized liquid rotenone containing 2.5 percent rotenone, 5.0 percent other cube extracts, 2.5 percent sulfoxide synergist and related compounds and 90 percent solvent.

Natural detoxification of rotenone is dependent upon alkalinity, temperature, and light. Under normal conditions, it can be expected to biodegrade within one month after application. Rotenone can be detoxified by adding equal parts of potassium permanganate.

Rotenone interferes with blood circulation in the gills of fish by shrinking the capillaries to the point that they no longer carry oxygen-bearing blood cells, thereby causing suffocation.

Concentrations of rotenone (1.0 to 5.0 parts per million) used in fish control have no known effects on mammal or bird life.

B. Antimycin – Registration Nos. 89991-5, 6, 7, 8

Antimycin has been used in Idaho since 1969. It is an antifungal, antibiotic isolated from the bacteria Streptomyces. The fermentation extracts are dark, tarry substances which are refined into a fine crystalline material.

The only formulation of antimycin currently available is liquid concentrate (10 percent active ingredient). Sand and solvable cake formulations have been used in Idaho in the past.

Biodegradation occurs more rapidly than with rotenone and is often complete within 48 to 168 hours. Factors such as sunlight, temperature and alkalinity control the rate of decomposition. Potassium permanganate can be used to hasten the process.

Antimycin is absorbed through the gills of fish where it enters the bloodstream and interferes with the utilization of oxygen in the red blood cells. It does not repel fish and once exposed to a lethal amount the effects are irreversible. Fish eggs are also affected by the chemical.

Concentrations of antimycin (1-10 parts per billion) used in fishery rehabilitation have no known effect on animal or bird life and very little on aquatic organisms. Bullhead catfish are highly resistant to antimycin and concentrations of 40-50 ppb are necessary for their control.

At present, the only commercial source for antimycin-A fish toxicant is Aquabiotics Corporation, 3386 Commercial Avenue, Northbrook, Illinois 60062. The material is expensive and supplies are limited. Antimycin will not be used extensively in the future.

#### C. Squoxin – Registration Pending

Sonar 300, commonly known as squoxin (1,1'-methylendi-2-naphthol) is highly selective for squawfish, a competitor and predator of salmonids in freshwaters of the Northwest (MacPhee and Ruelle 1969; Johnson 1972). It has been used experimentally in Idaho, Oregon, Washington and Canada to gain information on its effectiveness in fish management. Research on its biodegradation and degradation products was conducted at Oregon State University. Reports and data have been submitted to EPA for registration.

The formulation of the chemical most recently used was 39.5 percent or active ingredient, or 3 pounds of the salt per gallon. The balance, or 60.5 percent was denatured alcohol.

Degradation of squoxin is rapid; often within a few hours. Light and temperature are the two major factors governing the rate of degradation. It is relatively ineffective at temperatures below 55°F and deteriorates rapidly in bright sunlight.

Squoxin is absorbed through the gills and into the blood stream in much the same manner as antimycin. It is believed to effect the motor nerves which control body functions. Reaction to the chemical is similar to antimycin in that the fish gradually lose equilibrium and expire after five or six hours of exposure.

Concentrations used range from 50 to 100 ppb. Salmonids are not affected until the concentration reaches 1,000 ppb. Experiments with aquatic organisms (Keating 1972) indicated that they were not affected in the above concentrations.

## II Description of the Environment

The proposed action will affect primarily the aquatic environment. Idaho waters contain three species of salmon, two of trout, Dolly Varden, whitefish, and sturgeon that are considered native game fish. Introduced game species include warm-water fish, walleye, eastern brook trout, lake trout, brown trout, golden trout, and grayling. Rough fish include carp, suckers, tench, chub, chiselmouth, shiners and squawfish.

Water quality determines what species are present in a given body of water. Temperatures, turbidity, pH, and related factors limit certain species of fish to specific areas.

The Endangered Species Act of 1973 (Public Law 93-205); State. 884) establishes two categories of endangerment: a. those species in danger of extinction throughout their range, b. those species likely to become endangered in the foreseeable future. No known endangered species occur in the waters scheduled for rehabilitation. Population sampling prior to treatment is an integral part of the preparation for each project. The discovery of a rare or endangered species would either preclude treatment or necessitate arrangement for salvage and reintroduction of the fish involved. It is conceivable that a project could be beneficial to endangered species by removing competitors and predators from their environment.

Idaho waters are put to many uses. These include navigation, power production, agriculture, industrial, recreation, livestock, municipal, fish production, and many others. Chemical rehabilitation has no effect on most of the uses although coordination is necessary. It would affect fish rearing and while not harmful, chemicals such as rotenone can impart an undesirable taste and odor to water used for domestic purposes. The introduction of activated charcoal to water filtration systems has eliminated that problem and had further benefits in clarifying domestic water supplies.

Submergent and emergent plants are not directly affected by chemicals used in lake and stream rehabilitation. The removal of fish populations such as carp can result in a reduction in turbidity and an increase in plant growth.

The application of rotenone results in a short-term reduction in some



insect populations. Antimycin and squoxin have little or no effect on insect numbers. Crayfish are unharmed at normal treatment concentrations. Invertebrate sampling on Big Fall Creek in Oregon in 1965 indicated an 85 percent reduction in insect numbers immediately after treatment with rotenone, however, 2.5 months later the numbers had reached pre-treatment levels. Nutrients recycled to aquatic ecosystems during decomposition of chemical-killed fish usually cause increases in invertebrate populations which serve as food for fish stocked post-treatment.

The effects of rotenone on aquatic invertebrates were reviewed by Taube, Fukano, and Hooper (1954), Almquist (1959), Wollitz (1962), Binns (1967) and Farringer (1972). The U.S. Fish and Wildlife Service supported a 2-year study at the University of Missouri on the long-term effects of rotenone on aquatic invertebrates. The study was completed in 1973. In general, an application of rotenone in fish-killing concentration to a lake or stream may reduce the populations of certain species of aquatic invertebrates, and some species more than others. The evidence is that the reductions are temporary, and the affected species usually make rapid recoveries. The rapid growth of game fish that are stocked in newly reclaimed waters further attests the fact that the invertebrate food base is not permanently damaged by rotenone.

Larval forms of amphibians such as frogs and salamanders, which are gill-breathers, are affected in the same manner as fish when toxicants are applied. Adult air-breathing forms are not harmed and only the current reproductive cycle is interrupted.

Under normal application rates of either rotenone, antimycin or squoxin, mammals and birds suffer no ill effects. Accidental spills of full strength chemicals will cause skin and eye irritations on humans. Full strength chemicals would have similar effects on mammals and birds, however, such exposure is highly unlikely.

### III Environmental Impacts of Proposed Action

The major change will be in the removal of competitor and predator fish and their replacement with species that will provide recreational angling. The fish killed add nutrients to the waters treated, however, they can be removed from inhabited areas.

The action will have no effect on normal land uses. The creation of a good fishery could result in trespass problems on private property. It could also increase land values.

The social aspect will be reflected in the satisfaction of the anglers who benefit from the action. The increase in angler activity will result in an economic benefit to the general area in which the action takes place.

The probability of a catastrophe is remote. No accidents involving chemicals used in fish population control have occurred in Idaho since the program began.

Accidents where chemical spills could occur would result in a short-term concentration in the water receiving them, but there would be no long-term adverse effects. Accidental contact with full strength solutions of chemicals are not harmful if they are removed by immediate washing.

Long-term environmental effects of the degradation products of fish toxicants are not fully understood. Studies could be directed toward the effects of the chemicals on the aquatic food chain and on plant-eating animals. To date no known adverse effects have been documented. Nox fish and pro-noxfish were subjected to extensive toxicity studies over an eight year period by the S. B. Penick Company.

In one facet of the study, male and female rats of the Carworth strain were utilized in one year of feeding studies. The toxicant was given in drinking water. Water that had been detoxified by natural degradation was also used.

After one year of feeding, the rats were examined for gross pathology and the tissues submitted to an outside laboratory for histopathology studies. While there were some differences in weight gains as compared to the controls, no gross or microscopic differences in pathology were detected.

#### IV Mitigating Measures Included in the Proposed Action

The use of potassium permanganate to neutralize the chemicals will be a protective measure for downstream fish and other aquatic life. While no rare or endangered species of fish are known to occur in the waters scheduled for treatment, their discovery would lead to their salvage and reintroduction after treatment.

Water users will have the opportunity to make arrangements in their use schedules. If necessary, activated charcoal can be utilized to restore water quality.

#### V Unavoidable Adverse Impacts

The chemical rehabilitation of a lake or stream will result in a temporary reduction in the biomass. Included would be a loss of some game fish and aquatic insects. Some interference in water-oriented recreation can be expected during treatment.

Activities such as swimming and water skiing would be curtailed during the day of treatment. Angling would receive the greatest impact in that it would be eliminated until the waters were restocked.

#### VI Relationship between Local Short-Term Use of Man's Environment and Maintenance and Enhancement of Long-Term Productivity

Rehabilitation of a water results in a temporary loss of productivity and recreational use; however, production of desirable fish will

increase and exceed pretreatment levels. A minimum of five years of improved angling can be expected even if all rough fish are not removed. The benefits of a successful treatment can be indefinite.

The ecological change would be replacement or partial replacement of one or more species of competitive nongame fish such as carp, squawfish, sucker, and shiners with game fish which are more desirable to the angling public. No long-range ecological or geophysical consequences are expected.

## VII Irreversible and Irretrievable Commitments of Resources

No irreversible or irretrievable effects are expected because of the lack of physical alteration of the land or water involved and the characteristics of the chemicals proposed for lake and stream rehabilitation.

Generally, concentrations of rotenone used to kill fish in lakes and streams reduce the populations of certain species of aquatic invertebrates. Studies on the effects of rotenone have provided evidence that the reduction of aquatic invertebrates is temporary and the affected species usually make rapid recoveries. Concentrations of antimycin and squoxin used in fishery rehabilitation have little or no affect on aquatic invertebrates.

Adult air-breathing forms of amphibians such as frogs and salamanders would not be harmed by use of rotenone, antimycin or squoxin in fishery rehabilitation. However, larval forms in the gill-breathing stage may be affected in the same manner as fish and reproduction for the year during which the treatment occurred could be reduced. Resulting reductions in the local population of these animals would be temporary and recovery could be expected within a year or two.

Chemical treatment of lakes and streams would not have a direct affect on birds and mammals but could affect them indirectly for a short time. A localized reduction in the numbers of fish, aquatic invertebrates and amphibians caused by the treatment would result in a reduced food supply for some birds and mammals. Any reduction would be temporary and local in nature and the overall effect on bird and mammal populations would be insignificant.

Rehabilitation projects would be limited to a relatively small area of water during any one year and loss of the fishery in treated waters would be temporary. The waters normally would be restocked with game fish before the following fishing season.

## VIII Alternatives to the Proposed Action

- A. No action.  
Fish populations would eventually stabilize with the most productive and tolerant species becoming predominant. Angler use would remain at a low level.

- B. Physically remove undesirable fish.  
Trapping, netting and otherwise removing live fish is an expensive and time-consuming effort. The foregoing methods have been tried by various agencies and found to be ineffective in achieving the desired results. Rough fish seining by commercial fishermen is encouraged but does not substantially reduce rough fish populations.
- C. Stocking predator fish.  
Predator species of game fish can be effective in controlling unwanted species in some situations. However, the unwanted fish may not be a desired food item. Also, predator fish can escape or be promiscuously stocked in waters where they could prey on other game fish. Small-mouth bass have shown some positive results as predators. Walleye have been introduced in two reservoir systems. Northern pike have been illegally introduced in one system. Effects of these predators are being monitored but they are not expected to replace chemical treatments in most cases.
- D. Barriers.  
A barrier to fish movement can only be effective after the initial population above it is removed. This alternative has been employed in some cases, as has blockage of spawning runs of nongame fish. Results are dependent upon complete stoppage of fish migration.
- E. Other chemicals.  
Other chemicals can be used to remove rough fish but are often more costly and some have undesirable side affects. Also, only rotenone and antimycin are currently registered for use as pesticides.

## IX Consultation and Coordination with Others

Fish and Wildlife Service personnel assisted in the preparation of this statement. Rehabilitation projects are coordinated with land-owners, sportsmen's groups, environmental groups, and water users. The Federal Working Group on Pesticides and state pesticide clearing houses are also contacted. Local news media are informed and public hearings are held in the event of conflicting interests.

Chemical treatment projects must be reviewed and approved by the Idaho Fish and Game Commission, U.S. Fish and Wildlife Service and Idaho Department of Health and Welfare before they are conducted.

John V. Evans, Governor  
Daniel T. Emborg, Administrator



*Fuller*  
*HA F-10-12*  
State Capitol Building  
Boise, Idaho 83726

## DIVISION OF ECONOMIC AND COMMUNITY AFFAIRS

### IDAHO STATE CLEARINGHOUSE

#### PROJECT NOTIFICATION AND REVIEW CLEARANCE

APPLICANT: Joe Putman  
Dept. of Fish & Game  
STATEHOUSE MAIL

TITLE CHEMICAL REHABILITATION OF FISHERIES SAI# 00704497

FEDERAL AGENCY U.S. Dept. of the Interior FCDA# 15.605

DATE PROCESSED JULY 1 1980 DATE CLEARED AUGUST 4 1980

This project was reviewed by the State Clearinghouse, Areawide Clearinghouse(s) and agencies listed below in accordance with OMB Circular A-95 requirements. Reviewer(s)' comments are attached.

PAC — *affirmative findings/see comments*  
CEDA  
IDA-ORE  
RIVDA  
SICOG  
ECIPDA  
APA  
ID Dept. of Parks & Recreation  
JFAC  
ID Division of Financial Management  
ID Dept of Health & Welfare/Div. of Environment

#### State Clearinghouse findings:

       No comment      X Affirmative findings             Needs attention  
X Remarks below/attached             Negative findings/needs attention

STATE CLEARINGHOUSE COORDINATOR *Michael J. ...* (208) 334-3412

STATE OF IDAHO  
FACS and A-95 PROJECT NOTIFICATION  
and  
REVIEW SYSTEM NOTICE

For Office Use Only

Read Instructions On Each First

STATE APPLICATION IDENTIFIER <div style="font-size: 1.2em; font-family: monospace;">00704497</div>													
APPLICATION PROJECT TITLE Chemical REhabilitation of Fisheries 03-41-740	A-95 PROJECT Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
APPLICANT AGENCY DEPARTMENT OF FISH & GAME	FEDERAL AGENCY PROJECT NUMBER F 70 D												
APPLICANT ADDRESS (Street) 400 S. WAHNEP P. O. BOX 25	DIVISION Fisheries												
CONTACT PERSON Herb Pollard	CITY BOISE												
	ZIP CODE 83707												
	AREA CODE 208												
	PHONE 134												
	EXT. 3791												
PROJECT DESCRIPTION - NATURE, PURPOSE, IMPACT, NEED AND BENEFICIARIES To eradicate nongame fish or stunted game fish population in selected Idaho waters. Improve growth and survival of game fish by eliminating competitors. Improve fishing by removing nuisance fish and by providing larger and more numerous game fish. Selected waters will be treated with emulsified rotenone at concentrations of 1.0 to 5.0 parts per million to eradicate nongame fish and to reduce stunted game fish populations. Five Yr. Plan													
PROJECT LOCATION CITY Statewide	PROJECT LOCATION COUNTY Statewide												
PROJECT PERIOD From 7-1-80 To 6-30-85													
IMPACT AREA (Municipality, County, Regional, Statewide, etc. as applicable) Statewide													
TYPE OF ACTION													
NEW GRANT <input checked="" type="checkbox"/>	CONTINUATION GRANT <input type="checkbox"/>												
SUPPLEMENT GRANT <input type="checkbox"/>	INCREASE DOLLARS <input type="checkbox"/>												
DECREASE DOLLARS <input type="checkbox"/>	IF APPLICATION IS FOR FEDERAL FUNDS RECEIVED FROM/THROUGH A STATE AGENCY: State Agency _____ Original SAI No. _____												
Will Funds Ever Be Supplemented Or Contracted Out? If Yes, To Whom? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>													
FUNDING													
FEDERAL FUNDS (A) GRANT \$ 45,750 (B) OTHER \$	(C) STATE MATCH CASH \$ 15,250 IN KIND \$												
(D) LOCAL MATCH CASH \$ IN KIND \$	(E) OTHER FUNDS \$ TOTAL FUNDS \$ 61,000												
TYPE OF OTHER FEDERAL FUNDS (B) TYPE OF OTHER NON-FEDERAL FUNDS (E)													
State & Local Matching Requirements for First Three Years <table border="1" style="width: 100%; text-align: center;"> <tr> <td>STATE-1</td> <td>LOCAL-1</td> <td>STATE-2</td> <td>LOCAL-2</td> <td>STATE-3</td> <td>LOCAL-3</td> </tr> <tr> <td>%</td> <td>%</td> <td>%</td> <td>%</td> <td>%</td> <td>%</td> </tr> </table>		STATE-1	LOCAL-1	STATE-2	LOCAL-2	STATE-3	LOCAL-3	%	%	%	%	%	%
STATE-1	LOCAL-1	STATE-2	LOCAL-2	STATE-3	LOCAL-3								
%	%	%	%	%	%								
What Will the Maximum % Ever be for State Funding? From _____ To _____ mg/gy/yr mg/gy/yr													
FEDERAL PROGRAM TITLE Fish Restoration - Dingell-Johnson	FEDERAL CATALOG NO. 15.605												
FEDERAL AGENCY NAME Department of the Interior	FEDERAL SUB-AGENCY U. S. Fish & Wildlife Service												
IS PROJECT PHYSICAL DEVELOPMENT? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	INDICATE THE TITLES OF THE COMPREHENSIVE PLANS WHICH ARE APPLICABLE: ESTIMATED DATE APPLICANT EXPECTS TO FILE FORMAL APPLICATION: Month June Day 1 Year 80												
IS PROJECT NEAR WATERWAY? IF YES: <input checked="" type="checkbox"/> LAKE <input checked="" type="checkbox"/> RIVER <input checked="" type="checkbox"/> STREAM <input type="checkbox"/> OTHER													
GIVE A JUDGEMENT AS TO THE NATURE AND EXTENT OF THE ENVIRONMENTAL EFFECT ANTICIPATED. INCLUDE ANY ADVERSE EFFECTS THAT CANNOT BE AVOIDED AND ANY ALTERNATIVES TO THE CHOSEN COURSE OF ACTION.													
AUTHORIZED SIGNATURE 	TITLE Sr. Accountant												
DATE 6-25-80													



# STATE OF IDAHO

## DEPARTMENT OF HEALTH AND WELFARE

DIVISION OF ENVIRONMENT - 1118 E. Street - P O Drawer B - Lewiston, Idaho 83501

July 16, 1980

### M E M O R A N D U M

To: State Clearinghouse  
Bureau of Budget, Policy Planning & Coordination  
Boise, Idaho

From: Division of Environment  
1118 E. Street  
Lewiston, Idaho 83501

Re: A-95 Reviews

SAI#00604405 - We support this project, however repair activities must not significantly degrade downstream water quality.

SAI#00604463 - We support this project and we are completing our review of the Step 1 facilities plan.

SAI#00604462 - We support this project. The application is required to submit plans and specifications to this office for review and approval.

SAI#00604477 - We support this project. It will correct a serious public health hazard.

SAI#00604487 - We support this project. It will serve to improve water quality by controlling nonpoint source pollution problems.

~~SAI#00704497~~ - No Comment

SAI#00704499 - No Comment

SAI#00704511 - No Comment

Sincerely,

DIVISION OF ENVIRONMENT

Ed Tulloch

Sr. Environmental Quality Specialist

ET/cmd

xc: Michael Christie  
Robert Olson

**Clearwater  
Economic  
Development  
Association**

P.O. BOX 8636  
MOSCOW, IDAHO 83843

PHONE  
(208) 862-3470

REGION II CLEARINGHOUSE COMMENTS ON  
APPLICATION FOR FEDERAL AID

PROJECT TITLE: Chemical Rehabilitation of Fisheries

STATE APPLICATION IDENTIFIED (SAI) NO. 00704497

Date Project received by Regional Clearinghouse 7-7-80 Cleared 7-29-80

Clearwater Economic Development Association has reviewed the above project and has taken the following action:

REGIONAL CLEARINGHOUSE:

☐

Support the project

☐

Project needs attention

☒

No comment

LOCAL UNITS: The following local governmental units and interest groups have been contacted for assistance in reviewing this project:

DISTRIBUTED TO:

CEDA Board of Directors  
Fisheries

COMMENTS RECEIVED (Attached):

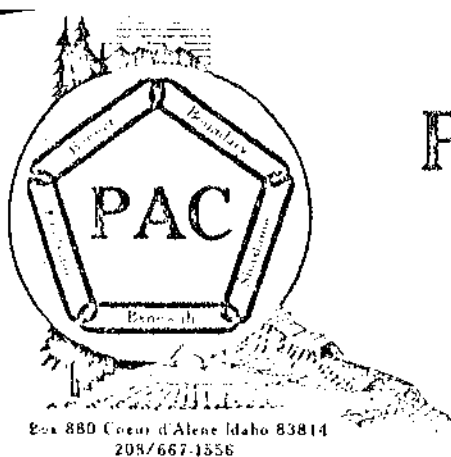
None

Reviewer's Signature

*John J. [Signature]*

Date 7-29-80





# Panhandle Area Council

A Voluntary Association Of  
Local City And County Governments  
Working Together.

State Clearinghouse Coordinator  
Idaho State Clearinghouse  
700 West State Street, 2nd Floor West  
Boise, Idaho 83720

Project Title: CHEMICAL REHABILITATION OF FISHERIES

SAI #: 00704497 Applicant Agency: Dept. of Fish & Game

List of Reviewers:

Commissioners  
Reg. Fish & Game  
Panhandle Health District  
Health & Welfare - DOE  
Kootenai Environmental Alliance  
Dept. of Public Lands  
Regional Forest Service

List of Respondents:

Benewah, Bonner Commissioners  
Panhandle Health District  
Health & Welfare - DOE  
Fish & Game  
Dept. of Lands  
Panhandle National Forests  
Kootenai Environmental Alliance

Reviewer Comment Findings:

2 No Comment  
6 Affirmative Finding COMMENTS ATTACHED.  
Negative Finding/Needs Attention

Clearinghouse Comments:

None.

Clearinghouse Signature: William H. Swartz

Date: 8/4/80

Title: Area I A-95 Coordinator

within the IPNFs.

James L. Cooper  
Acting Multi-Resource Staff  
USDA, Idaho Panhandle Natl Forests

I believe the project will enhance the quality of fishing in the treated lakes.

Donald D. Jones  
Administrative Division of Forest Res.  
Idaho Dept. of Public Lands

Where a significant part of the appeal of North Idaho especially, and Idaho in general, lies in the fishing industry and the waters of the state, we feel that we cannot speak of promoting tourism without speaking to all aspects of that which increase its appeal.

Robert G. Klatt  
Bonner County Commissioner

this project will enhance game fish populations which will in turn benefit citizens of the state - David Neider, Reg. Supvr. Dept. of Fish & Game

COEUR D'ALENE AREA  
COUNCIL  
P. O. Box 880  
Coeur d'Alene, Idaho 83814  
A-95 FAC SHEET

RECEIVED  
JUL 14 1980

DIVISION OF ENVIRONMENT  
COEUR D'ALENE OFFICE

Please return comments by: July 28, 1980 to the address above.

SENT TO: — Mike Christie, Director  
Division of Environment  
Dept. of Health & Welfare  
2110 Ironwood Parkway  
Coeur d'Alene, Idaho 83814

DATE: 7/10/80

NO: 1462

PROJECT TITLE/SAI# CHEMICAL REHABILITATION OF FISHERIES - 00704497

APPLICANT AGENCY: Dept. of Fish & Game PROJECT LOCATION: Statewide

FUNDING AGENCY: Dept. of the Interior PROJECT COST: \$61,000

CONTACT PERSON: Herb Pollard PHONE NUMBER: 334-3791

PROJECT DESCRIPTION:

To eradicate nongame fish or stunted game fish population in selected Idaho waters. Improve growth and survival of game fish by eliminating competitors. Improve fishing by removing nuisance fish and by providing larger and more numerous game fish. Selected waters will be treated with emulsified rotenone at concentrations of 1.0 to 5.0 parts per million to eradicate nongame fish and to reduce stunted game fish populations.

NEED ADDITIONAL INFORMATION

I (we) have reviewed the A-95 FAC Sheet and request the following action be taken:  
(Please check none, numbers one, two, three or four)

1. ☐ A copy of the Grant Application and/or Plan be sent for review.
2. ☐ An extension of time be granted in order that we can review the grant application and thereby comment after evaluation of the program.
3. ☐ A meeting with the Applicant Agency to explain the project.
4. ☐ None of the above. Comments are below.

COMMENTS BY LEGISLATIVE ACTION

☐ No Comment

☐ Approve the project (state reasons on back why you support project)\*

☐ Disapprove the project (state reasons on back why you do not support the project)\*

I certify as the Chief Executive Officer of the City or Chairman of the Board of County Commissioners, that the above comments represent the opinion or position of the City Council or Board of Commissioners and such action was taken by legislative approval, vote or resolution.

Agency or Position

Signature

Date

NON-LEGISLATIVE COMMENTS. INDIVIDUAL ELECTED OFFICIAL, STAFF, OTHER AGENCIES, CITY

- ☒ No Comment For statewide project, activities should be reviewed for compatibility with state water quality/public water supply standards by Boise, Division of Environment before proceeding.
- ☐ Approve the project (state reasons on back why you support project)\*
- ☐ Disapprove the project (state reasons on back why you do not support the project)\*

I certify, that the above comments only represent my personal comments and were not approved by legislative action (ie. city council, county commission)

Agency or Position

Signature

Date

\*IF YOU APPROVE OR DISAPPROVE THE PROJECT, PLEASE LIST YOUR REASONS ON THE BACK SO THE APPLICANT CAN HAVE THE BENEFIT OF YOUR INPUT.